

## INTRODUCTION

In the 1960's the American society experienced unprecedented levels of civil insurrection and social conflict. Opposition to the war in Vietnam and the struggle for civil rights were constant themes and the primary causes for conflict during this turbulent decade. Out of these difficult times police departments learned a great deal about themselves and their practices. Unfortunately, much of what they learned was not good news. Although most Americans regard their police departments favorably, the level of public support for policing was not then, and is still not, consistent throughout all segments of our society. Specifically, among some racial, ethnic and social minority groups the police are at times regarded less than favorably.

In an effort to engage the minority community into the process of policing, many departments developed race relations programs and deployed special units to address the specific needs of these communities. For the most part these efforts have been productive. Community/neighborhood policing initiatives and the trend toward decentralization have enabled police departments to address the specific needs of various groups within the larger community, including specifically the needs of the minority community. However, among a considerable proportion of our population the perception that the police are sometimes inappropriately influenced by the race or ethnicity of a citizen while making routine enforcement decisions remains an intractable problem.

At some level, the race or ethnicity of an individual is an important, even critical, component of police decision-making. For example, race and ethnicity are often included in a series of other identifiers that help police officers identify and arrest individuals suspected of criminal activity. Even the most vociferous critics of the police do not deny the police the

use of this information within this context. Of more concern is the use of race or ethnicity as the sole or primary identifier of a potentially suspicious person. More specifically, some critics charge that the police generally regard minority citizens with more suspicion than non-minority citizens and as a result stop, detain, search and arrest minority citizens at higher rates than they are represented in the community.

The overall purpose of this study is to describe the routine enforcement and/or public service activities, specifically stops, of the Wichita Police Department. But this report is about more than efficiency and effectiveness. This department routinely evaluates its programs, including routine enforcement, to determine its operational effectiveness. Instead this report attempts to determine whether differential enforcement patterns exist, with respect to the race or ethnicity of citizens, within the routine practices of the Wichita Police Department.

This report is divided into four sections. Section One includes a review of the contemporary literature on race based policing and racial profiling. Specifically, this section includes a definition of the terms “race based policing” and “racial profiling”, a discussion on the available assessment methods, the results of previous studies conducted in other cities and states, and an outline of the ongoing research controversies.

Section Two describes the study’s methodology. This includes a description of the available data set and its preliminary analysis. Most notably, this section includes a brief discussion on the key historical events that may affect the validity of the results.

The results of the various analyses and their findings are included in Section Three. This section is divided into four parts. The first part describes the decision to stop and focuses on why Wichitans are stopped by the police. This necessarily includes identifying

whether or not there are any differential patterns in the routine enforcement practices of the department with respect to the race, ethnicity, age and gender of citizens; beats throughout the city; day of the week and time of day; and various demographic variables relating to the department's employees. The second part focuses on the stop itself and answers several questions relating to the factors affecting the duration of the stop, the pattern of physical confrontation between officers and citizens, and the number of officers that are present at stops. The third part describes the decision to search. This necessarily includes a discussion on the search rationale, the relationship between the reason for the stop and a subsequent search, and the results of the search. The fourth part describes the results of the stops and focuses on the relationship between the seriousness of the primary reason for the stop and the level of enforcement action taken.

Section Four, concludes the report and includes analyses of two issues (reactivity and differential deployment patterns) that potentially affect the validity of the results. This section concludes with a few cautionary statements regarding the interpretation of the results.

## **SECTION ONE**

### **A REVIEW OF THE LITERATURE**

This section begins with a definition of the terms “race based policing” and “racial profiling”. Following this is an overview of the more common assessment methods used by previous researchers. Then, a brief review of the contemporary literature outlines the results of similar studies completed in other parts of the nation. Finally, discussions on some of the recent controversies relating to the research in this area are provided for the reader’s contextual information.

#### **What are race based policing and racial profiling?**

Race based policing, sometimes referred to as racial profiling, is best described as a practice whereby a police officer routinely makes law enforcement decisions, for example a decision to stop, solely on the basis of a citizen’s race or ethnicity (Withrow 2002).

MacDonald (2001) defines two types of profiling. *Hard* profiling occurs when a police officer uses race as the *only* factor in assessing criminal suspiciousness. *Soft* profiling occurs when a police officer uses race as one factor among others in determining criminal suspiciousness (*emphasis hers*). These definitions necessarily suggest that the police officer has some predetermined perception (i.e., prejudice) that all or most members of some racial or ethnic groups are more likely to engage in criminal behavior. However, these definitions do not classify as race based policing a situation wherein a police officer uses race or ethnicity as *one* of several identifiers of a *known* suspect to make an enforcement decision.

#### **Available assessment methods**

Various methods are available to the researcher for determining the presence or extent of race based policing. By far the most common method is to compare the proportional

representation of racial and ethnic groups in a certain population against the proportional representation of racial and ethnic groups stopped and/or searched by police officers within the same population. Presumably, if the proportions of some racial or ethnic groups stopped, searched and/or arrested by the police are higher than the proportional representations of the same racial or ethnic groups within the same community, then race and/or ethnicity would appear to play an important role in this form of police officer decision-making.

Using anecdotal information some researchers attempt to identify the common factors (e.g., the frequency of stops, the demeanor of the officer, the seriousness of the stated reason, or the relationship between the seriousness of the stated reason and the results of the stop) within a routine traffic stop that lead citizens to the conclusion that the stop (i.e., the police officer) is motivated primarily by the race of the driver. In these types of studies the researcher typically conducts a content analysis of scenarios that are described as “racial profiling” by the victims (Withrow and Jackson 2001).

At least one researcher (Lambreth 1994 and 1997) conducts extensive observations of traffic patterns and attempts to develop baseline information relating to the race, age and gender of motorists that actually drive within a specified geographic location. He later compares the race, age and gender of motorists actually stopped by the police in the same geographic location to determine if racial or ethnic minority groups are over-represented.<sup>1</sup>

### **The results of previous studies**

The potential effects of various extra-legal factors, including but not limited to race and ethnicity, on police officer decision-making and behavior within the context of an arrest are well established. Overwhelmingly, these studies appear to indicate that while the race or

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<sup>1</sup> Lambreth is currently conducting a similar study for the State of Kansas. Data from the Wichita area will be included in his results.

ethnicity of the suspect may influence a police officer's decision to make an arrest, the effect of these variables is quite small in contrast to other factors present during the citizen contact. Consistently, these studies reveal that the seriousness of the offense has the most influence on a police officer's decision to arrest an individual (Black 1971; Black and Reiss, 1970; Browning et. al. 1994; Powell 1981; Smith and Visher 1981).

There is a relatively new yet rapidly expanding amount of research on how the race or ethnicity of a citizen might affect a police officer's decision to stop and/or search. These studies indicate that minorities, Blacks in particular, are stopped by the police at proportionally higher rates than they are represented in the community, among licensed drivers or among actual users of the roadway. Most of the evidence supporting this is based on comparisons between the proportional representation of minority or ethnic groups in a population and the proportional representation of minority groups that are actually stopped by the police. (Cordner, Williams and Zuniga 2000; Harris 1997; Harris 1999; Knowles, et al. 1999; Lambreth 1994; Lambreth 1997; Langan et al. 2001; New York Attorney General's Office 1999; Norris, Fielding, Kemp and Fielding 1992; Roberts 1999; Smith and Petrocelli 2001).

Similarly, these same studies appear to indicate that minority citizens, particularly Blacks, are, pursuant to a stop, searched more often than non-minority citizens. There is, however, an exception. In their recent study of 2,673 traffic stops conducted in Richmond Virginia, Smith and Petrocelli (2001) find that White drivers are more likely to be the subject of a consent search, ticketed and arrested than Black drivers.

Comparisons between the racial proportions of licensed drivers and those actually issued tickets, and/or convicted for violating traffic laws, appear also to indicate a disparity.

For example, throughout the state of Florida, Blacks represent 11.7% of the driving age population and 15.1% of all drivers actually convicted of traffic violations (ACLU 1999). These researchers do not report whether or not this disparity is statistically significant. It is unclear from this research how the likelihood of receiving a ticket is influenced by the seriousness of the offense for which the motorist was stopped. Furthermore, the researchers do not report how extra-legal factors (e.g. socio-economic class, availability of legal representation) affect judicial decision-making.

A content analysis of fifty scenarios from citizens alleging racism in police decision-making reveals patterns similar to the previously outlined research. These reports came from various newspapers and other media sources and have in common the perception of racism among the motorists. The motorists believe that the police considered the race of the driver and/or occupants of the vehicle when deciding whether or not to stop and/or search the vehicle. In short, these citizens are accusing the police officers of racism, or at the very least race based policing. In forty-seven of the fifty scenarios (94%) the police officer articulated a bona fide reason, albeit relatively minor, for stopping the motorists. Only thirteen of the fifty stops (26%) resulted in the issuance of a citation or the arrest of the motorist. Interestingly, individuals that did not receive a citation questioned the validity (relative seriousness of the alleged offense) of the stop and many concluded the articulated reason for the stop was merely a pretext (Jackson and Withrow 2000).

### **Ongoing research and controversies**

Researchers interested in determining the factors that affect a police officer's decision to arrest have a substantial advantage over those attempting to determine the factors that affect a police officer's decision to stop. In almost every police/citizen contact in which an

arrest is probable an official record is created and available to the researcher. This record includes the extra-legal factors that these researchers need to compare the demographic profiles of the group arrested against the group not arrested. In doing so, these researchers are able to determine the differences between and the similarities amongst the groups and identify the salient factors that might cause an officer to make an arrest. Researchers interested in determining what factors affect a police officer's decision to stop a citizen are not so fortunate. There are no records kept on citizens *not stopped* by the police. As a result it is impossible to compare the demographic features of both groups and identify the specific factors that might predict a police officer's decision to stop a citizen.

A pattern of racial or ethnic disparity may be explained by the context of the enforcement objective. Policing on an interstate highway is different than policing in an urban setting. The use of race in drug courier profiles may be the most plausible explanation for racial disparity in an interstate highway or rural drug interdiction context. However, deployment may be a more useful explanation in an urban setting. Police departments typically deploy officers into areas of high demand for their services. Often these are neighborhoods of high population density and high crime. Sometimes these neighborhood characteristics correlate with high concentrations of racial or ethnic minority groups. As a result, officers are inadvertently highly concentrated in racial and ethnic minority neighborhoods.

Data generated from police department self-reports may be unreliable because of potential reactivity. For many years researchers have known that individuals behave differently when cognizant of an observer. Asking the police to routinely report the race or ethnicity of all individuals they contact will undoubtedly generate questions from officers on



how the information will be used. An honest response will leave officers with the perception that should the data reveal a disparate pattern of enforcement decision-making then they or their departments may be subjected to public scrutiny and even disciplinary action. This has the potential for influencing the data gathering exercise and threatening the validity of the information. Individual responses could include incomplete reporting, outright deception and/or the failure of an officer to make a legitimate contact out of fear that it may be perceived to be racially motivated. This does not suggest that the typical police response would necessarily be untruthful. Instead the reactivity issue is important precisely because critics of the research might consider the resulting data invalid and thereby dismiss potentially important findings.

Conclusions drawn solely from proportional comparisons may not produce complete information regarding the dynamics of racial or ethnic discrimination. Proportional comparisons may be useful for determining whether or not an overall enforcement program results in a disparate effect. However, they provide little insight into the subjective characteristics of a police/citizen contact that might lead a citizen to believe that his or her race motivated an officer's attention. The primary research question, whether or not the police are racially biased in their decision-making, cannot be answered completely on the basis of proportional comparisons alone. Unfortunately, there are no tests that can, with an acceptable level of validity, determine whether or not an individual is prejudiced.

Proportional comparisons should be based on an appropriate sampling frame. The racial distribution of a general population is not necessarily the same as the racial distribution of its subsets. For example, the racial proportion of adults, licensed drivers or actual users of the roadways may be different than that of the general population. The sampling frame of

any research relating to race based policing should not include individuals that are not, for whatever reason, routinely within the purview of police supervision.

## **SECTION TWO**

### **METHODOLOGY**

This section describes the study's methodology. Specifically, this section includes a description of how the data were collected, an outline of the resulting data set and the documentation of its preliminary analysis. Importantly, this section includes a brief outline of the key historical events (i.e., things that happened in the community during the data collection) that may affect the validity of the results.

#### **How the data were collected**

In late 2000 the Wichita Police Department, with the assistance of a working group of community representatives, designed a comprehensive data collection effort to assess race based policing within the routine enforcement activities of its employees. Employees of the department collected the data. The data collection started in January 2001 shortly after a series of training sessions were provided to the employees responsible for completing the forms. Qualitative information relating to every police/citizen contact (stop) of an official nature was recorded on specially designed 'bubble forms' (see Appendix #1). These contacts include discretionary and non-discretionary vehicle, pedestrian and bicycle stops as well as traffic accident investigations conducted by all members of the department. They do not include information from citizen calls for service. The forms were "read" by an optical character reader and the data were saved in a separate database.

In July 2001 representatives from the Wichita Police Department provided the principal investigator<sup>2</sup> with a data set representing the first six months of collected information including 37,454 stops. To date this is the largest and most qualitatively

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<sup>2</sup> Brian L. Withrow, Ph.D., Assistant Professor of Criminal Justice and Director of the Midwest Criminal Justice Institute at Wichita State University

complete data set of its type known to the principal investigator. This data set was appended with demographic information relating to the race, ethnicity<sup>3</sup>, age, years of service and gender of the employees reporting the stops. In order to insure confidentiality the principal investigator amended the portion of the data set that includes the employees' identification numbers. Any attempt by the principal investigator to analyze the data with respect to individual officer performance is beyond the scope of this study.

As with any social data set, missing values present a potential challenge to statistical analyses. Because most of the variables are discrete it is impossible for the principal investigator to replace missing data in a scientifically acceptable manner. However the proportion of missing data is very small (ranging from .1% to .6%) and does not adversely affect the results of the analyses.

Throughout the analysis the principal investigator developed new variables from the original data set in order to either insure the data conformed to the assumptions of each statistical technique or to facilitate the interpretation of the findings. The data set is described in Appendix #2.

### **Preliminary analyses**

Upon receipt of the data set the principal investigator conducted a series of diagnostic tests to insure compatibility between the originally provided data set (in ASCII format) and the resulting SPSS data file. These tests indicated that no information was lost during the file conversion. However, after reviewing the frequencies for each variable, the principal investigator determined the variable describing the date of the stop to be unreliable. Fortunately, this did not adversely affect the subsequent analyses.

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<sup>3</sup> The Wichita Police Department specifies 'Hispanic' as an employee race rather than an ethnicity.

Following this labels were created for each variable and its attributes. The labels for each attribute were provided by the Wichita Police Department. Unrecognizable entries and missing data were labeled either “not reported” or “system missing”, respectively.

Initially, one of the most important decisions was which population figure to use as a baseline during the analyses. Fortunately, as the data were being collected information from the 2000 Census was becoming available thereby making the need for population estimates, and specifically estimates of race and ethnic group proportions, unnecessary. Because the data set included potentially all citizens (including children) it was decided, as a general rule, to use the overall population figures for the city of Wichita available from the 2000 Census (U.S. Bureau of the Census, 2001).

### **Key events that may affect the validity of the results**

During the course of data collection a number of events occurred within the city of Wichita that could adversely affect the validity of the results. First, immediately prior to the start of data collection Wichita experienced two quadruple homicides. It is difficult, if not impossible, to determine what effect these two events might have had on the routine activities of Wichita Police Department employees within the context of this analysis, if any. However, it is certain that these events did result in at least a temporary change in the department’s deployment strategy.

Second, and of more concern, is that during data collection a young girl was accidentally killed during a drive-by shooting incident. This incident resulted in the saturation patrol of certain neighborhoods, many of them predominately minority, in which the suspected perpetrators were known to either live or frequent. During this enforcement strategy members of the department stopped and questioned a large number of individuals,

many of them minority, in an effort to identify and locate the suspected perpetrators. Here again, it is difficult to determine the exact effect of this temporary patrol strategy on the routine activities of department members.

Third, as in all studies involving self-report data reactivity is a concern. Despite repeated assurances to the contrary from the department's command structure, a few officers informed the principal investigator (informally) of their concern that the results of the analyses would be used against them or their department. To what extent these officers' concerns resulted in a change in their routine enforcement practices is unknown to the principal investigator and cannot be conclusively determined from the available data.

Finally, on any given day or time the individuals actually using the roadways in and through Wichita may not be reflective of the city's population. As the largest city in the region, Wichita attracts a large number of individuals from outside the city seeking shopping, health care or other services not available to them in smaller outlying towns. These visitors are not represented in the population figures provided by the U.S. Census and could potentially affect the validity of the analyses. Again, the extent of the effect of this is unknown and indeterminate with the current data.

### **SECTION THREE**

#### **ANALYSIS AND FINDINGS**

This section is divided into four parts and includes the results of the various analyses and their findings. The first part describes the decision to stop and focuses on why Wichitans are stopped by the police. This necessarily includes identifying whether or not there are any differential patterns in the routine enforcement practices of the department with respect to the race, ethnicity, age and gender of citizens; beats throughout the city; day of the week and time of day; and various demographic variables relating to the department's employees. The second part focuses on the stop itself and answers several questions relating to the factors affecting the duration of the stop, the pattern of physical confrontation between officers and citizens and the number of officers that are present at stops. The third part describes the decision to search. Most importantly, this section identifies the factors that influence a police officer's decision to search a vehicle or person. This necessarily includes a discussion on the search rationale, the relationship between the reason for the stop and a subsequent search and the results of the search. The fourth part describes the results of the stops and focuses on the relationship between the seriousness of the primary reason for the stop and the level of enforcement action taken.

##### **The decision to stop**

More than half (53.1%) of the individuals stopped by the police are stopped for a moving violation. The second most common category of stops (19.5%) is the result of a traffic accident investigation. Defective equipment violations (11.4%) represent the third most common reported reason for a stop (See Table 3.1). This pattern is consistent throughout each beat in the city and for every race or ethnic group represented in the city.

**Table 3.1 – Primary reason for stop**

<b>Reported reason</b>	<b>Frequency</b>	<b>Percent</b>
MV-Dangerous-Officer Observed	1824	4.9
MV-Dangerous-Dispatched	48	.1
MV-Dangerous-Citizen Reported	33	.1
MV-Other-Officer Observed	17826	47.6
MV-Other-Dispatched	77	.2
MV-Other-Citizen Reported	62	.2
DUI/DL Check Lane	88	.2
PC-BOLO-Radio Broadcast	258	.7
PC-Personal Knowledge of Suspect	190	.5
PC-Bulletin of Suspect	134	.4
SC-Officer Observed	1320	3.5
SC-Dispatched	232	.6
SC-Citizen Reported	181	.5
DE-Lights or Windshield	3561	9.5
DE-Deliberate Modification	66	.2
DE-All Others	621	1.7
DE-Dispatched	2	.0
DE-Citizen Reported	2	.0
SR-Officer Observed	669	1.8
SR-Dispatched	289	.8
SR-Citizen Reported	74	.2
Pedestrian Stop-Violation	666	1.8
Injury Traffic Accident	2446	6.5
Non-Injury Traffic Accident	4853	13.0
Citizen Contact-Miscellaneous/Other	1811	4.8
Not Reported	121	.3
Total	37454	100.0

**NOTE:** "MV" = Moving Violation; "PC" = Probable Cause; "SC" = Suspicious Circumstances; "DE" = Defective Equipment; "SR" = Service Rendered

An additional variable, general reason for the stop (GENREAS), was created from the detailed primary reason variable to facilitate the interpretation of this variable (See Table 3.2).



**Table 3.2 – General reason for stop**

<b>Reported reason</b>	<b>Frequency</b>	<b>Percent</b>
Moving violation	19870	53.1
DUI/DL Check Lane	88	.2
Probable cause	582	1.6
Suspicious circumstances	1733	4.6
Defective equipment	4252	11.4
Service rendered	1032	2.8
Pedestrian stop	666	1.8
Traffic accident	7299	19.5
Miscellaneous	1811	4.8
Missing	121	.3
Total	37454	100.1

**NOTE:** Percentages may exceed 100.0% due to rounding error.

Most stops occur either on Friday (16.8%) or Thursday (16.2%). The fewest percentage of stops occur on Mondays (10.5%) (See Table 3.3). Slightly more than one third (36.7%) of the stops occur during the 2:30 pm to 10:30 pm shift. The fewest number of stops (29.6%) occur during the night shift from 10:30 pm to 6:30 am. This finding is consistent with the Wichita Police Department's usual practice of deploying more personnel during the afternoon and early evening shifts (See Table 3.4)

**Table 3.3 – Day of week**

<b>Day of week</b>	<b>Frequency</b>	<b>Percent</b>
Monday	3938	10.5
Tuesday	5041	13.5
Wednesday	5549	14.8
Thursday	6070	16.2
Friday	6299	16.8
Saturday	5944	15.9
Sunday	4465	11.9
Not reported	148	.4
Total	37454	100

**Table 3.4 – Time (shift) of day**

Shift	Frequency	Percent
Day (0630 -1430)	12405	33.1
Evening (1431 – 2230)	13748	36.7
Night (2231 – 0629)	11089	29.6
Not reported	212	.6
Total	37454	100

When compared to their proportional representation throughout the community, Black citizens are stopped at disproportionately higher rates than White, Asian, Native American and Other Race citizens. Based on the U.S. Census 2000 data, Black citizens represent 11.4% of the overall population of the city of Wichita and 20.7% of the stops (See Table 3.5).

**Table 3.5 Race of citizens stopped**

Race	Percent of population	Number of stops	Percent or stops
Asian	4.0	1081	2.9
<b>Black</b>	<b>11.4</b>	<b>7743</b>	<b>20.7</b>
Native American	1.2	104	.3
White	75.2	26618	71.1
Other Race	8.2	1853	4.9
Not reported	-	55	.1
Total	100	37454	100

This level of disparity does not appear evident among the Hispanic community. Based on the U.S. Census 2000 data, Hispanic citizens (of all races) represent 9.6% of the overall population of the city of Wichita and 9.2% of the stops (See Table 3.6).

**Table 3.6 – Ethnicity of citizens stopped**

<b>Ethnicity</b>	<b>Percent of population</b>	<b>Number of stops</b>	<b>Percent of stops</b>
Hispanic	9.6	3462	9.2
Non Hispanic	90.4	33817	90.3
Not reported	-	175	.5
Total	100	37454	100

Individuals between the ages of 18 and 24 years of age represent the largest proportion (29.4%) of individuals stopped by the Wichita Police Department. Citizens less than 18 and over 50 years of age represent the lowest (7.7%) and next to lowest (10.6%) proportions of individuals stopped by the Wichita Police Department, respectively. Because of inconsistencies in the age range data collection methods between the Wichita Police Department and the U.S. Bureau of the Census and the unavailability of this type of census data at the time of writing this report, it is not possible to develop a credible statistical comparison (See Table 3.7). However, this finding is consistent with previous criminological studies that identify youth as a significant correlate among offenders.

**Table 3.7 – Age of citizens stopped**

<b>Age group</b>	<b>Frequency</b>	<b>Percent</b>
Less than 18	2874	7.7
<b>18 – 24</b>	<b>10994</b>	<b>29.4</b>
25 – 34	9516	25.4
35 – 50	10018	26.7
Over 50	3968	10.6
Not reported	84	.2
Total	37454	100

When compared to their proportional representation throughout the community, male citizens are stopped at higher rates than female citizens. Male citizens represent roughly half of the overall population of the city of Wichita and 65.2% of the stops (See Table 3.8).

**Table 3.8 – Gender of citizens stopped**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	24414	65.2
Female	12981	34.7
Not reported	59	.2
Total	37454	100.1

**NOTE: Percentages may exceed 100.0% due to rounding error.**

A crosstabulation of employee race and the race of the citizen stopped reveals a pattern consistent with the overall finding. In other words, the aforementioned pattern of disparity with respect to race is consistent throughout the department regardless of the race of the officer. For example, of the 37,454 stops in the data set, Black officers made 1,580. Of these stops, 362, or 22.9%, involved Black citizens and 1,008, or 63.8%, involved White citizens. Of the 37,454 stops in the data set, White officers made 31,781. Of these stops, 6,590, or 20.7%, involved Black citizens and 22,618, or 71.2% involved White citizens (See Table 3.9).

**Table 3.9 – Crosstabulation of employee race and race of citizen**

	<b>Race of citizen (RACE)</b>						
	<b>Asian</b>	<b>Black</b>	<b>Native American</b>	<b>White</b>	<b>Other</b>	<b>Not reported</b>	<b>Totals</b>
<b>Race of employee (EMPRAC)</b>							
<b>Asian</b>							
Count	10	59	1	248	15	0	333
% w/in EMPRAC	3.0	17.7	.3	74.5	4.5	0	100.0
% w/in RACE	.9	.8	1.0	.9	.8	0	.9
<b>Black</b>							
Count	37	362	6	1008	159	8	1580
% w/in EMPRAC	2.3	22.9	.4	63.8	10.1	.5	100.0
% w/in RACE	3.4	4.7	5.8	3.8	8.6	14.5	4.2
<b>Hispanic</b>							
Count	55	493	9	1545	76	3	2181
% w/in EMPRAC	2.5	22.6	.4	70.8	3.5	.1	100.0
% w/in RACE	5.1	6.4	8.7	5.8	4.1	5.5	5.8
<b>Native American</b>							
Count	4	34	2	265	23	0	328
% w/in EMPRAC	1.2	10.4	.6	80.8	7.0	0	100.0
% w/in RACE	.4	.4	1.9	1.0	1.2	0	.9
<b>White</b>							
Count	945	6590	83	22618	1511	34	31781
% w/in EMPRAC	3.0	20.7	.3	71.2	4.8	.1	100.0
% w/in RACE	87.4	85.1	79.8	85.0	81.5	61.8	84.9
<b>Not reported</b>							
Count	30	205	3	934	69	10	1251
% w/in EMPRAC	2.4	16.4	.2	74.7	5.5	.8	100.0
% w/in RACE	2.8	2.6	2.9	3.5	3.7	18.2	3.3
<b>Totals</b>							
Count	1081	7743	104	26618	1853	55	37454
% w/in EMPRAC	2.9	20.7	.3	71.1	4.9	.1	100.0
% w/in RACE	100.0	100.0	100.0	100.0	100.0	100.0	100.0

An interesting pattern emerges with respect to the relationship between the race of an employee and the ethnicity of the citizen stopped. Hispanic, Native American and Asian officers stop disproportionately higher proportions (as compared to Hispanic representation (9.6%) throughout the city) of Hispanic citizens. Conversely, Black and White officers stop disproportionately lower proportions of Hispanic citizens (See Table 3.10).

**Table 3.10 – Crosstabulation of employee race and ethnicity of citizen**

	<b>Ethnicity of citizen (ETHNIC)</b>			
	<b>Hispanic</b>	<b>Non Hispanic</b>	<b>Not reported</b>	<b>Totals</b>
<b>Race of employee (EMPRAC)</b>				
<b>Asian</b>				
Count	37	269	0	333
% w/in EMPRAC	11.1	88.6	0	100.0
% w/in ETHNIC	1.1	.9	0	.9
<b>Black</b>				
Count	122	1448	10	1580
% w/in EMPRAC	7.7	91.6	.6	100.0
% w/in ETHNIC	3.5	4.3	5.7	4.2
<b>Hispanic</b>				
Count	338	1839	4	2181
% w/in EMPRAC	15.5	84.3	.2	100.0
% w/in ETHNIC	9.8	5.4	2.3	5.8
<b>Native American</b>				
Count	50	276	2	328
% w/in EMPRAC	15.2	84.1	.6	100.0
% w/in ETHNIC	1.4	.8	1.1	.9
<b>White</b>				
Count	2808	28852	121	21781
% w/in EMPRAC	8.8	90.8	.4	100.0
% w/in ETHNIC	81.1	85.3	69.1	84.9
<b>Not reported</b>				
Count	107	1106	38	1251
% w/in EMPRAC	8.6	88.4	3.0	100.0
% w/in ETHNIC	3.1	3.3	21.7	3.3
<b>Totals</b>				
Count	3462	33817	175	37454
% w/in EMPRAC	9.2	90.3	.5	100.0
% w/in ETHNIC	100.0	100.0	100.0	100.0

A series of similar analyses (crosstabulations) of employee age, employee gender, employee years of service and the race or ethnicity of the citizen stopped reveals patterns consistent with the overall findings. The aforementioned pattern of disparity with respect to race is consistent throughout the department regardless of the age of the officer, the officer's gender, or the length of time the officer has been with the department. Similarly, regardless of the age, gender or length of service of the officer, Hispanic citizens are not over represented.

In an attempt to empirically identify the factors that might predict the race of the citizen stopped the principal investigator developed a logistic regression model. This

statistical technique is essentially an extension of multiple regression and is used primarily in situations when the dependent variable is not a continuous or quantitative variable. Because the previous crosstabulations revealed that Black citizens appear to be the only racial group disproportionately represented, a dichotomous dependent variable (BLACK) was developed from the original variable describing the race of the citizen stopped (RACE). For this new variable, individuals that are Black are coded as “1” and individuals that are not Black are coded as “0”. It should be stressed that this model only attempts to predict the race of the citizens actually stopped. Because there is no record of the individuals *not stopped* the model cannot completely predict the effect of race on getting stopped. The predictors for this analysis include variables relating to the officer, the location of the stop, the time of day, the age of the citizen and the number of occupants.

The model indicates that citizens stopped at night, at the officer’s discretion and in the company of other individuals are more likely to be Black. Interestingly, the model predicts that older officers (in terms of age) are less likely to stop Black citizens than younger officers. Conversely, more experienced officers are more likely to stop Black citizens than less experienced officers. This seemingly illogical finding is mitigated by the fact that the influence (predictive power) of an officer’s age and years of experience are negligible (See Table 3.11).

**Table 3.11 – Logistic regression model of factors predicting the race of the citizen stopped by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
<b>Officer's years of experience</b>	<b>.008</b>	<b>.042</b>	<b>1.008</b>
<b>Officer's age</b>	<b>-.013</b>	<b>.000</b>	<b>.987</b>
Officer's race <sup>a</sup>	-.055	.239	.947
Officer's gender <sup>b</sup>	.022	.620	1.022
Crime rate	.002	.969	1.002
Age of citizen <sup>c</sup>	-.017	.582	.983
<b>Time of day<sup>d</sup></b>	<b>.383</b>	<b>.000</b>	<b>1.466</b>
<b>Officer's level of discretion<sup>e</sup></b>	<b>.281</b>	<b>.000</b>	<b>1.324</b>
<b>Number of occupants</b>	<b>.095</b>	<b>.000</b>	<b>1.100</b>

Note: Model chi-square = 5408.097,  $p < .05$ , Nagelkerke R-square = .233

Dependent variable: 0 = Not-Black, 1 = Black

a. 0 = Not minority, 1 = Minority

b. 0 = Female, 1 = Male

c. 0 = 25+ years old, 1 = less than 25 years old

d. 0 = Day, 1 = Night

e. 0 = Non-discretionary, 1 = Discretionary

Variables in bold indicate statistical significance of .05 or less.

### The stop

Without regard for the general reason for the stop or the results of the stop, most (51.3%) stops throughout the city last from five to fifteen minutes (See Table 3.12). With the exception of Native American citizens, this pattern is consistent with respect to race and ethnicity (See Tables 3.13 through 3.14). Stops involving Native American citizens appear to last longer. However, the proportion of stops involving Native Americans is so small (only .3% of the total) that a few lengthy stops affect the overall pattern dramatically. Notwithstanding this exception, these patterns are inconsistent with previous research findings that appear to indicate that minority citizens are detained for longer periods of time than non-minority citizens.



**Table 3.12 – Duration of stop**

<b>Duration</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5 minutes	6206	16.6
5 – 15 minutes	19222	51.3
16 – 30 minutes	3652	9.8
Over 30 minutes	8273	22.1
Not reported	101	.3
Total	37454	100.1

NOTE: Percentages may exceed 100.0% due to rounding error.

**Table 3.13 – Crosstabulation of duration of stop and race of citizen**

	<b>Duration of stop (DURATION)</b>					<b>Totals</b>
	<b>Less than 5 minutes</b>	<b>5 – 15 minutes</b>	<b>16 – 30 minutes</b>	<b>Over 30 minutes</b>	<b>Not reported</b>	
<b>Race of citizen (RACE)</b>						
<b>Asian</b>						
<b>Count</b>	173	569	102	236	1	1081
<b>% w/in RACE</b>	16.0	52.6	9.4	21.8	.1	100.0
<b>% w/in DURATION</b>	2.8	3.0	2.8	2.9	1.0	2.9
<b>Black</b>						
<b>Count</b>	1260	3910	903	1650	20	7743
<b>% w/in RACE</b>	16.3	50.5	11.7	21.3	.3	100.0
<b>% w/in DURATION</b>	20.3	20.3	24.7	19.9	19.8	20.7
<b>Native American</b>						
<b>Count</b>	7	38	19	39	1	104
<b>% w/in RACE</b>	6.7	36.5	18.3	37.5	1.0	100.0
<b>% w/in DURATION</b>	.1	.2	.5	.5	1.0	.3
<b>Other</b>						
<b>Count</b>	328	929	189	400	7	1853
<b>% w/in RACE</b>	17.7	50.1	10.2	21.6	.4	100.0
<b>% w/in DURATION</b>	5.3	4.8	5.2	4.8	6.9	4.9
<b>White</b>						
<b>Count</b>	4430	13751	2436	5942	59	26618
<b>% w/in RACE</b>	16.6	51.7	9.2	22.3	.2	100.0
<b>% w/in DURATION</b>	71.4	71.5	66.7	71.8	58.4	71.1
<b>Not reported</b>						
<b>Count</b>	8	25	3	6	13	55
<b>% w/in RACE</b>	14.5	45.5	5.5	10.9	23.6	100.0
<b>% w/in DURATION</b>	.1	.1	.1	.1	12.9	.1
<b>Totals</b>						
<b>Count</b>	6206	19222	3652	8273	101	37454
<b>% w/in RACE</b>	16.6	51.3	9.8	22.1	.3	100.0
<b>% w/in DURATION</b>	100.0	100.0	100.0	100.0	100.0	100.0

**Table 3.14 – Crosstabulation of duration of stop and ethnicity of citizen**

	Duration of stop (DURATION)					
	Less than 5 minutes	5 – 15 minutes	16 – 30 minutes	Over 30 minutes	Not reported	Totals
<b>Ethnicity of citizen (ETHNIC)</b>						
<b>Hispanic</b>						
Count	500	1793	380	781	8	3462
% w/in ETHNIC	14.4	51.8	11.0	22.6	.2	100.0
% w/in DURATION	8.1	9.3	10.4	9.4	7.9	9.2
<b>Non Hispanic</b>						
Count	5695	17399	3268	7377	78	33817
% w/in ETHNIC	16.8	51.5	9.7	21.8	.2	100.0
% w/in DURATION	91.8	90.5	89.5	89.2	77.2	90.3
<b>Not reported</b>						
Count	11	30	4	115	15	175
% w/in ETHNIC	6.3	17.1	2.3	65.7	8.6	100.0
% w/in DURATION	.2	.2	.1	1.4	14.9	.5
<b>Totals</b>						
Count	6206	19222	3652	8273	101	37454
% w/in ETHNIC	16.6	51.3	9.8	22.1	.3	100.0
% w/in DURATION	100.0	100.0	100.0	100.0	100.0	100.0

Traffic accidents and probable cause stops are by far the most time consuming types of stops typically lasting thirty or more minutes. DUI/DL Check Lane stops are the least time consuming stops typically lasting less than five minutes. All other types of stops (Moving Violation, Suspicious Circumstances, Defective Equipment, Service Rendered, Pedestrian and Miscellaneous) typically last from five to fifteen minutes.

Predictably, stops resulting in any type of a search tend to last longer than stops that do not. Stops resulting in a search typically last more than 30 minutes. Consistent with the overall pattern, stops that do not result in a search last from five to fifteen minutes. Similarly, stops resulting in physical resistance last longer than stops that do not. Stops resulting in physical resistance typically last more than 30 minutes. Consistent with the overall pattern, stops that do not result in physical resistance typically last from five to fifteen minutes.

An analysis (crosstabulation) of the general reason for the stop and the duration of the stop reveals a logical pattern, i.e., stops resulting in more severe police responses (e.g. arrests versus warnings) take longer. In other words, it takes longer for a police officer to affect an arrest than to issue a warning. The results of this analysis indicate that stops resulting in felony arrests, misdemeanor arrests, and the generation of a police case last longer. Stops resulting in the issuance of a warning are the least time consuming. Stops resulting in the issuance of a citation, no action taken, a citizen assists, a field interview or turning over the suspect to an outside agency are consistent with the overall pattern, i.e., most lasting from five to fifteen minutes.

Generally, the more experience an officer has the less time he or she spends on a stop. Consistent with the overall pattern, most stops regardless of officer experience last from five to fifteen minutes. However, the proportion of stops within this time category diminishes (from 54.5% to 19.0%) as the years of experience category increases. Most stops (36.2%) conducted by officers with twenty to twenty-six years of experience last less than five minutes.<sup>4</sup> The age, gender or race of the employee do not affect the duration of the stop. Regardless of the employee's age, gender or race, most stops last from five to fifteen minutes.

A logistic regression model was developed to identify the factors that might predict the length of a stop. For this model the four levels of the original variable describing the duration of the stop were collapsed into two and coded, "0" = up to fifteen minutes and "1" = over fifteen minutes. The predictors for this analysis include variables relating to the officer, the race or ethnicity of the citizen, the results of the stop (arrest or search), the age of the

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<sup>4</sup> The number of officers with twenty-seven or more years experience is too small to be considered relevant to this analysis.

citizen, the crime rate of the location in which the stop was conducted, the time of day during which the stop occurred, the number of officers and occupants involved in the stop and the incidents of physical resistance.

Predictably, the duration of a stop increases if it results in an arrest or includes a search. The model also predicts that as the number of officers at a stop increases so does the duration of the stop. However, the temporal order of this relationship is unclear. Specifically, the model cannot determine whether or not the number of officers present increases the length of the stop or if longer lasting stops draw more officers. Finally, the numbers of citizens involved in a stop, as well as the officer's age, appear to have a slight effect (lengthening) on the duration of the stop.

The time of day (day/night), race of the citizen (Black/Not Black), the officer's gender and years of experience appear to decrease the duration of the stop. Stops conducted at night, involving Black citizens, by experienced male officers tend to be briefer.

Neither the ethnicity of the citizen (Hispanic/Not Hispanic), the age of the citizen, the crime rate of the area in which the stop was conducted nor an incidence of physical resistance appear to affect the duration of the stop. Intuitively one would assume that a stop involving physical resistance would increase the overall length of the stop. However, as discussed below, the number of stops involving physical resistance represents a very small percentage of the total number of stops (See Table 3.15).

**Table 3.15 – Logistic regression model of factors predicting the duration of stops conducted by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
<b>Black<sup>a</sup></b>	<b>-.419</b>	<b>.000</b>	<b>.658</b>
Hispanic <sup>b</sup>	-.008	.060	.889
<b>Search<sup>c</sup></b>	<b>.943</b>	<b>.000</b>	<b>2.567</b>
<b>Arrest<sup>d</sup></b>	<b>2.865</b>	<b>.000</b>	<b>17.542</b>
<b>Officer's gender<sup>e</sup></b>	<b>-.761</b>	<b>.000</b>	<b>.467</b>
<b>Officer's years of experience</b>	<b>-.050</b>	<b>.000</b>	<b>.951</b>
<b>Officer's age</b>	<b>.070</b>	<b>.000</b>	<b>1.072</b>
<b>Time of day<sup>f</sup></b>	<b>-1.387</b>	<b>.000</b>	<b>.250</b>
Age of citizen <sup>g</sup>	-.065	.035	.937
Crime rate	-.031	.473	.939
<b>Number of officers</b>	<b>1.089</b>	<b>.000</b>	<b>2.970</b>
<b>Number of occupants</b>	<b>.105</b>	<b>.000</b>	<b>1.111</b>
Physical resistance <sup>h</sup>	.187	.318	1.205

Note: Model chi-square = 12100.013,  $p < .05$ , Nagelkerke R-square = .427

Dependent variable: 0 = Up to fifteen minutes, 1 = Over fifteen minutes

a. 0 = Not Black, 1 = Black

b. 0 = Not Hispanic, 1 = Hispanic

c. 0 = No search, 1 = Search

d. 0 = No arrest, 1 = Arrest

e. 0 = Female, 1 = Male

f. 0 = Day, 1 = Night

g. 0 = 25+ years old, 1 = less than 25 years old

h. 0 = No physical resistance, 1 = Physical resistance

Variables in bold indicate statistical significance of .05 or less.

Only 331, or .9%, of the 37,454 stops involve physical resistance between the officer and citizen. Stops involving Asian citizens result in the lowest proportion (.5%) of physical resistance. Stops involving Native Americans result in the highest proportion (1.9%) of physical resistance. Physical resistance occurs in 1.7% and .6% of the stops involving Black and White citizens, respectively (See Table 3.16). Stops involving Hispanic citizens result in a higher percentage (1.2%) of physical resistance than did stops involving Non Hispanics (.9%).

**Table 3.16 – Crosstabulation of race of citizen and physical resistance**

	<b>Race of citizen (RACE)</b>						
	<b>Asian</b>	<b>Black</b>	<b>Native American</b>	<b>White</b>	<b>Other</b>	<b>Not reported</b>	<b>Totals</b>
<b>Physical Resistance (PHYREAS)</b>							
<b>No</b>							
<b>Count</b>	1070	7542	102	26261	1826	41	36842
<b>% w/in EMPRAC</b>	2.9	20.5	.3	71.3	5.0	.1	100.0
<b>% w/in RACE</b>	99.0	97.4	98.1	98.7	98.5	74.5	98.4
<b>Yes</b>							
<b>Count</b>	5	134	2	172	17	1	331
<b>% w/in EMPRAC</b>	1.5	40.5	.6	52.0	5.1	.3	100.0
<b>% w/in RACE</b>	.5	1.7	1.9	.6	.9	1.8	.9
<b>Not reported</b>							
<b>Count</b>	6	67	0	185	10	13	281
<b>% w/in EMPRAC</b>	2.1	23.8	0	65.8	3.6	4.6	100.0
<b>% w/in RACE</b>	.6	.9	0	.7	.5	23.6	.8
<b>Totals</b>							
<b>Count</b>	1081	7743	104	26618	1853	55	37454
<b>% w/in EMPRAC</b>	2.9	20.7	.3	71.1	4.9	.1	100.0
<b>% w/in RACE</b>	100.0	100.0	100.0	100	100.0	100.0	100.0

**Table 3.17 – Crosstabulation of ethnicity of citizen and physical resistance**

	<b>Ethnicity of citizen (ETHNIC)</b>			
	<b>Hispanic</b>	<b>Non Hispanic</b>	<b>Not reported</b>	<b>Totals</b>
<b>Physical Resistance (PHYREAS)</b>				
<b>No</b>				
<b>Count</b>	3403	33282	157	36842
<b>% w/in PHYREAS</b>	9.2	90.3	.4	100.0
<b>% w/in ETHNIC</b>	98.3	98.4	89.7	98.4
<b>Yes</b>				
<b>Count</b>	41	280	0	331
<b>% w/in PHYREAS</b>	12.4	87.6	0	100.0
<b>% w/in ETHNIC</b>	1.2	.9	0	.9
<b>Not reported</b>				
<b>Count</b>	18	245	18	281
<b>% w/in PHYREAS</b>	6.4	87.2	6.4	100.0
<b>% w/in ETHNIC</b>	.5	.7	10.3	.8
<b>Totals</b>				
<b>Count</b>	3462	33817	175	37454
<b>% w/in PHYREAS</b>	9.2	90.3	.5	100.0
<b>% w/in ETHNIC</b>	100.0	100.0	100.0	100.0

The percentage of stops involving physical resistance diminishes (from 35.0% to 1.2%) as the age of the employee increases. The general reason for the stop does not appear to

substantially predict physical confrontation. Stops resulting in more severe consequences (i.e., an arrest vs. a warning) appear to increase the probability of physical resistance.

Overall .9% of all stops include physical resistance. However, physical resistance is present in 21.5% of stops that result in a felony arrest. Similarly, a higher proportion of stops that result in a search (5.1%) include physical resistance than do stops that do not result in a search (.3%).

A logistic regression model was developed to identify the factors that might predict physical resistance during a stop. The dependent variable for this model (PHYREAS) is coded, “0” = No physical resistance and “1” = physical resistance. The predictors for this analysis include variables relating to the officer, the race or ethnicity of the citizen, the results of the stop (arrest or search), various location variables, the age of the driver, and others.

Stops resulting in an arrest or involving a search appear to strongly predict the incidence of physical resistance. Stops involving Black citizens appear to more likely result in physical resistance than do stops involving non-Black citizens. A citizen’s ethnicity does not affect the likelihood of physical resistance. The model also predicts that as the number of officers at a stop increases so does the likelihood of physical resistance. However, the temporal order of this relationship is unclear. Specifically, the model cannot determine whether or not the number of officers present increases the likelihood of physical resistance or if stops involving physical resistance attract more officers. Finally, the number of occupants involved in a stop and the officer’s age tend to (slightly) increase the likelihood of physical resistance (See Table 3.18).

**Table 3.18 – Logistic regression model of factors predicting physical resistance in stops conducted by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
<b>Black<sup>a</sup></b>	<b>.403</b>	<b>.005</b>	<b>1.496</b>
Hispanic <sup>b</sup>	.183	.422	1.201
<b>Search<sup>c</sup></b>	<b>1.470</b>	<b>.000</b>	<b>4.350</b>
<b>Arrest<sup>d</sup></b>	<b>1.586</b>	<b>.000</b>	<b>4.885</b>
Officer's gender <sup>e</sup>	.019	.917	1.019
Officer's years of experience	-.023	.158	.977
<b>Officer's age</b>	<b>.024</b>	<b>.049</b>	<b>1.024</b>
Time of day <sup>f</sup>	-.186	.153	.831
Age of citizen <sup>g</sup>	.158	.193	1.171
Crime rate	.254	.121	1.289
<b>Number of officers</b>	<b>.144</b>	<b>.000</b>	<b>1.155</b>
<b>Number of occupants</b>	<b>.048</b>	<b>.012</b>	<b>1.050</b>

Note: Model chi-square = 663.560,  $p < .05$ , Nagelkerke R-square = .203

Dependent variable: 0 = No physical resistance, 1 = Physical resistance

a. 0 = Not Black, 1 = Black

b. 0 = Not Hispanic, 1 = Hispanic

c. 0 = No search, 1 = Search

d. 0 = No arrest, 1 = Arrest

e. 0 = Female, 1 = Male

f. 0 = Day, 1 = Night

g. 0 = 25+ years old, 1 = less than 25 years old

Variables in bold indicate statistical significance of .05 or less.

Most stops involve one (55.5%) or two (34.1%) officers. During stops involving Asian and White citizens, the most common number of officers is one, 62.7% and 55.6%, respectively. During stops involving Black and Native American citizens, this pattern is not as clear. There are two officers present at 44.3% of the stops involving Black citizens and at 41.3% of the stops involving Native American citizens. During stops involving Black and Native American citizens, one officer is the second most typical, 43.2% and 39.4%, respectively (See Table 3.19). The number of officers present at stops involving Hispanic drivers is consistent with the overall finding. Nearly half (49.9%) of all stops involving Hispanic citizens involve only one officer. Probable cause stops result in the highest proportion (38%) of stops (by general reason category) involving three or more officers. The



general result of the stop is a more reliable indicator of the number of officers that will be at a stop. Stops ending with a felony arrest result in the highest proportion (44.9%) of stops (by general results category) involving three or more officers. In contrast to this, stops resulting in a citizen assist or a warning result in the lowest proportion (2.6% and 2.9%, respectively) of stops (by general reason category) involving three or more officers.

**Table - 3.19 Crosstabulation of the number of officers and race of citizen**

	Number of officers (NUMOFF)					
	One officer	Two officers	Three officers	3 + officers	Not reported	Totals
<b>Race of citizen (RACE)</b>						
<b>Asian</b>						
Count	678	311	64	28	1081	
% w/in RACE	62.7	28.8	5.9	2.6	100.0	
% w/in NUMOFF	3.3	2.4	2.4	2.6	2.9	
<b>Black</b>						
Count	2244	3432	647	320	7743	
% w/in RACE	43.2	44.3	8.4	4.1	100.0	
% w/in NUMOFF	16.1	26.5	24.6	29.8	20.7	
<b>Native American</b>						
Count	41	43	13	7	104	
% w/in RACE	39.4	41.3	12.5	6.7	100.0	
% w/in NUMOFF	.2	.3	.5	.7	.3	
<b>Other</b>						
Count	1031	640	135	47	1853	
% w/in RACE	55.6	34.5	7.3	2.5	100.0	
% w/in NUMOFF	5.0	4.9	5.1	4.4	4.9	
<b>White</b>						
Count	15676	8518	1764	660	26618	
% w/in RACE	58.6	32.0	6.6	2.5	100.0	
% w/in NUMOFF	75.4	65.7	67.1	61.4	71.1	
<b>Not reported</b>						
Count	23	12	7	13	55	
% w/in RACE	41.8	21.8	12.7	23.6	100.0	
% w/in NUMOFF	.1	.1	.3	1.2	.1	
<b>Totals</b>						
Count	20793	12956	2630	1075	37454	
% w/in RACE	55.5	34.6	7.0	2.9	100.0	
% w/in NUMOFF	100.0	100.0	100.0	100.0	100.0	

A logistic regression model was developed to identify the factors that might predict the number of officers during a stop. The dependent variable for this model was developed from the original scale variable (NUMOFF) indicating the number of officers involved in a stop. A new dichotomous variable (NUMOFF-CAT) was developed and coded, “0” = two or

less officers and “1” = more than two officers. Based on the previous research, it appears that more than two officers at a routine traffic stop are perceived by many citizens to be too many. The predictors for this analysis include variables relating to the race or ethnicity of the citizen, the results of the stop (arrest or search), various location variables, the age of the driver, and others.

The model predicts that stops resulting in an arrest, involving a search, occurring in high crime areas and including multiple citizens will involve more officers. The Wichita Police Department, like many municipal departments, requires officers to request assistance in these situations. The effect of this policy is evident in this finding. Neither the race nor ethnicity of the citizen appear to predict (influence) the number of officers at a stop (See Table 3.20).

**Table 3.20 – Logistic regression model of factors predicting the number of officers at stops conducted by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
Black <sup>a</sup>	.065	.205	1.068
Hispanic <sup>b</sup>	-.012	.890	.988
<b>Search<sup>c</sup></b>	<b>.972</b>	<b>.000</b>	<b>2.643</b>
<b>Arrest<sup>d</sup></b>	<b>1.049</b>	<b>.000</b>	<b>2.855</b>
Time of day <sup>e</sup>	.059	.179	1.061
Age of citizen <sup>f</sup>	.073	.079	1.075
<b>Crime rate</b>	<b>.310</b>	<b>.000</b>	<b>1.363</b>
<b>Number of occupants</b>	<b>.169</b>	<b>.000</b>	<b>1.184</b>

Note: Model chi-square = 2103.862,  $p < .05$ , Nagelkerke R-square = .136

Dependent variable: 0 = Two or less officers, 1 = More than two officers

a. 0 = Not Black, 1 = Black

b. 0 = Not Hispanic, 1 = Hispanic

c. 0 = No search, 1 = Search

d. 0 = No arrest, 1 = Arrest

e. 0 = Day, 1 = Night

f. 0 = 25+ years old, 1 = less than 25 years old

Variables in bold indicate statistical significance of .05 or less.

## The decision to search

During 4,567 (12.2%) of the 37,454 stops a search was requested.<sup>5</sup> Searches were requested from 26.0% of Native American citizens, 21.2% of Black drivers, 9.7% of White drivers and 6.6% of Asian drivers (See Table 3.21). Searches were requested from 16.5% of Hispanic drivers (See Table 3.22).

**Table 3.21 – Crosstabulation of search request and race of citizen**

	Race of citizen (RACE)						
	Asian	Black	Native American	White	Other	Not reported	Totals
<b>Type of search (TYPSEAR1)</b>							
<b>Search requested</b>							
Count	71	1645	27	2578	229	17	4567
% w/in TYPSEAR1	1.6	36.0	.6	56.4	5.0	.4	100.0
% w/in RACE	6.6	21.2	26.0	9.7	12.4	30.9	12.2
<b>No search requested</b>							
Count	1010	6098	77	24040	1624	38	32887
% w/in TYPSEAR1	3.1	18.5	.2	73.1	4.9	.1	100.0
% w/in RACE	93.4	78.8	74.0	90.3	87.6	69.1	87.8
<b>Totals</b>							
Count	1081	7743	104	26618	1853	55	37454
% w/in TYPSEAR1	2.9	20.7	.3	71.1	4.9	.1	100.0
% w/in RACE	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Table 3.22 – Crosstabulation of search request and ethnicity of citizen**

	Ethnicity of citizen (ETHNIC)			
	Hispanic	Non Hispanic	Not reported	Totals
<b>Type of search (TYPSEAR1)</b>				
<b>Search requested</b>				
Count	571	3977	19	4567
% w/in TYPSEAR1	12.5	87.1	.4	100.0
% w/in RACE	16.5	11.8	10.9	12.2
<b>No search requested</b>				
Count	2891	29840	156	32887
% w/in TYPSEAR1	8.8	90.7	.5	100.0
% w/in RACE	83.5	88.2	89.1	
<b>Totals</b>				37454
Count	3462	33817	175	100.0
% w/in TYPSEAR1	9.2	90.3	.5	100.0
% w/in RACE	100.0	100.0	100.0	

<sup>5</sup> Item 13 (TYPSEAR1) was used for this portion of the analysis. Cases with the “not applicable” attribute filled in (meaning “yes”) are interpreted as cases that did not involve a search. Cases with the “not applicable” attribute left blank (meaning “no”) are interpreted as cases that involved a search.

The most commonly reported type of search occurs incident to arrest. However consent and inventory searches are prominent. The least common type of search is a search pursuant to a warrant. This pattern remains relatively consistent regardless of race. However, among Asian citizens, the most common type of search is a consent search. Consistent with the overall pattern, among Hispanic citizens the most common types of searches are conducted incident to an arrest.

Searches are requested from younger citizens more often than from older citizens. Searches are requested from male citizens at more than twice the proportion of female citizens.

Hispanic officers request a disproportionately higher number of searches than any other race or ethnic group of officers. This is likely explained by the relatively high proportion of Hispanic (bilingual) officers assigned to the S.C.A.T. team. Members of this specialized enforcement group conduct searches more frequently than do generally assigned patrol officers. Younger officers, particularly those between 21 and 35 years of age, request a disproportionately higher number of searches than do older officers. Officers with the least experience, particularly those with six or less years, request a disproportionately higher number of searches.

As previously stated, stops are relatively evenly distributed across the three shifts, with slightly more (36.7%) occurring during the evening shift (2:30 pm – 10:20 pm). However, the majority (53.3%) of searches are conducted during the night shift.

Stops for suspicious circumstances and probable cause result in disproportionately higher percentages of searches. Stops involving a traffic accident investigation result in a disproportionately lower percentage of searches (see Table 3.23).

**Table 3.23 – Searches and general reason for the stop**

General reason for the stop	Percent of total stops	Percent of searches	Percent difference
Moving Violation	53.2	53.6	+ .4
DUI/DL Check Lane	.2	.2	0
Probable Cause	1.6	7.0	+ 5.4
Suspicious circumstances	4.6	10.9	+ 6.3
Defective Equipment	11.4	12.0	+ .6
Service Rendered	2.8	.6	- 2.2
Pedestrian	1.8	3.8	+ 2.0
Traffic Accident	19.6	4.1	- 15.5
Miscellaneous	4.9	7.9	+ 3
Totals	100.1	100.1	

NOTE: Percentages may exceed 100.0% due to rounding error.

Stops resulting in misdemeanor or felony arrests result in a search more often than any other general result. This appears consistent with the finding (discussed below) that the most frequent search rationale is search incident to an arrest. Stops resulting in the issuance of a citation result in a disproportionately lower percentage of searches (See Table 3.24).

**Table 3.24 – Searches and general results of the stop**

General results	Percent of total stops	Percent of searches	Percent difference
Felony arrest	1.5	11.2	+ 9.7
Misdemeanor arrest	8.7	54.3	+ 45.6
Citation	57.1	17.5	- 39.6
Warning	7.9	4.2	- 3.7
Police Case Generated	11.4	3.9	- 7.5
No action taken	9.2	5.3	- 3.9
Citizen Assist	2.4	.3	-2.1
Field Interview	1.7	3.0	+ 1.3
Turned over to outside agency	.1	.2	+ .1
Totals	100	99.9	

NOTE: Percentages may be less than 100.0% due to rounding error.

The number of citizens involved in a stop appears to increase the likelihood of a search. Stops involving one citizen (61.4% of the total) result in only 46.6% of the searches.

Stops involving two citizens (24.5 of the total) result in 32.8% of the searches. Stops involving three citizens (8.1% of the total) result in 12.3% of the searches. Stops involving four persons (3.4%) result in 5.4% of the searches. No apparent pattern of disparity exists between the proportion of total stops and the percentages of stops resulting in a search during stops involving more than four citizens.

Of the 4,297 searches, for which a search rationale was indicated, most (55.9%) occur incident to an arrest<sup>6</sup>. Document indicators are the least frequent search rationale reported. Neither the race nor the ethnicity of the citizen appear to substantially affect this pattern.

Contraband is seized in only 1,247 (3.3%) of the stops<sup>7</sup>. Of these drugs and drug paraphernalia are the most common types of contraband seized. This pattern is consistent regardless of race or ethnicity.

A logistic regression model was developed to identify the factors that might predict whether or not a search is conducted during a stop. The dependent variable for this model was developed from the original variable (TYPSEAR1) recoded as, “0” = no search, and “1” = search. The predictors for this analysis include variables relating to the officer, the race or ethnicity of the citizen, the results of the stop (arrest or search), various location variables, the age of the driver, and others.

It should come as no surprise that stops resulting in an arrest are most likely going to involve a search. The Wichita Police Department requires its officers to search individuals upon an arrest. As previously mentioned, searches incident to an arrest are the most common search rationale. The second most predictive variable (time of day) indicates that stops occurring during nighttime hours are more likely to result in searches. This is most likely

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<sup>6</sup> Item 12 (SRCHRAT1) was used for this portion of the analysis.

<sup>7</sup> Item 13 (CONSXD1) was used for this portion of the analysis.

due to a desire on the part of officers to insure their safety. Both the race and ethnicity of the citizen appear to affect the probability of a search. Black and Hispanic citizens are more likely to be searched than non-Black and non-Hispanic citizens. When officers use their discretion to conduct a stop, as opposed to being dispatched, they are more likely to conduct a search. Citizens less than 25 years of age are more likely to be searched than individuals over 25 years old. Finally, the model predicts that female officers are more likely to conduct a search than male officers (See Table 3.25).

**Table 3.25 – Logistic regression model of factors predicting the incidence of a search during stops conducted by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
<b>Black<sup>a</sup></b>	<b>.563</b>	<b>.000</b>	<b>1.755</b>
<b>Hispanic<sup>b</sup></b>	<b>.406</b>	<b>.000</b>	<b>1.501</b>
<b>Arrest<sup>c</sup></b>	<b>3.685</b>	<b>.000</b>	<b>39.843</b>
<b>Officer's gender<sup>d</sup></b>	<b>-.633</b>	<b>.002</b>	<b>.531</b>
<b>Time of day<sup>e</sup></b>	<b>.782</b>	<b>.000</b>	<b>2.186</b>
<b>Age of citizen<sup>f</sup></b>	<b>.118</b>	<b>.012</b>	<b>1.125</b>
Crime rate	.078	.251	1.081
<b>Number of occupants</b>	<b>.031</b>	<b>.019</b>	<b>1.032</b>
<b>Number of officers</b>	<b>.328</b>	<b>.000</b>	<b>1.1389</b>
<b>Officer's level of discretion<sup>g</sup></b>	<b>.392</b>	<b>.000</b>	<b>1.480</b>

Note: Model chi-square = 10223.382,  $p < .05$ , Nagelkerke R-square = .502

Dependent variable: 0 = No search, 1 = Search

a. 0 = Not Black, 1 = Black

b. 0 = Not Hispanic, 1 = Hispanic

c. 0 = No arrest, 1 = Arrest

d. 0 = Female, 1 = Male

e. 0 = Day, 1 = Night

f. 0 = 25+ years old, 1 = less than 25 years old

g. 0 = Non-discretionary, 1 = Discretionary

Variables in bold indicate statistical significance of .05 or less.

### The results of the stop

The majority (57.1%) of all stops result in the issuance of a citation. The second most common result (11.4%) is the creation of a police case. Only 10.2% of all stops result in an arrest. Wichita Police Department employees have a tendency to handle most of their

activities within the department. Only .1% of all stops result in the individual being turned over to another agency (See Table 3.26).

**Table 3.26 – General results of the stop**

<b>General results of the stop</b>	<b>Percent of total stops</b>
Felony arrest	1.5
Misdemeanor arrest	8.7
Citation	57.1
Warning	7.9
Police Case Generated	11.4
No action taken	9.2
Citizen Assist	2.4
Field Interview	1.7
Turned over to outside agency	.1
Total	100

Most stops for a moving violation, DUI/DL Check Lane or defective equipment result in the issuance of a citation. Most probable cause stops result in a misdemeanor arrest. Most stops for suspicious circumstances and pedestrian stops result in no action taken. Most traffic accident stops result in the generation of a police case.

An analysis of the general results of a stop by race and ethnicity reveals an inconsistent pattern. Stops involving Asian citizens represent 2.9% of the total stops and are over represented in turned over to outside agencies (5.9%), police cases generated (3.4%), citations (3.3%) and field interviews (3.3%). Stops involving Black citizens represent 20.7% of the total stops and are over represented in felony arrests (46.2%), misdemeanor arrests (34.6%), turned over to outside agency (32.4%), field interviews (27.6%), warnings (27.3%), citizen assist (24.6%) and no action taken (24.1%). Stops involving Native Americans citizens represent .3% of the total stops and are over represented in misdemeanor arrests (.9%), felony arrests (.5%) and police cases generated (.5%). Stops involving White



citizens represent 71.1% of the total stops and are over represented in police cases generated (76.9%) and citations (74.2%) and (See Table 3.27).

**Table 3.27 – Crosstabulation of general results of the stop and race of the citizen**

	Race of citizen (RACE)						
	Asian	Black	Native American	White	Other	Not reported	Totals
<b>General results of stop (GENRESUL)</b>							
<b>Felony arrest</b>							
Count	11	258	3	255	27	2	556
% w/in GENRESUL	2.0	46.2	.5	45.9	4.9	.4	100.0
% w/in RACE	1.0	3.3	2.9	1.0	1.5	4.4	1.5
<b>Misdemeanor arrest</b>							
Count	33	1128	30	1897	168	4	3260
% w/in GENRESUL	1.0	34.6	.9	58.2	5.2	.1	100.0
% w/in RACE	3.0	14.6	29.1	7.1	9.1	8.9	8.7
<b>Citation</b>							
Count	699	3690	36	15807	1081	20	21333
% w/in GENRESUL	3.3	17.3	.2	74.1	5.1	.1	100.0
% w/in RACE	64.8	47.8	35.0	59.6	58.5	44.4	57.1
<b>Warning</b>							
Count	67	803	4	1914	152	4	2944
% w/in GENRESUL	2.3	27.3	.1	65.0	5.2	.1	100.0
% w/in RACE	6.2	10.4	3.9	7.2	8.2	8.9	7.9
<b>Police case generated</b>							
Count	146	606	20	3269	198	10	4249
% w/in GENRESUL	3.4	14.3	.5	76.9	4.7	.2	100.0
% w/in RACE	13.5	7.9	19.4	12.3	10.7	22.2	11.4
<b>No Action taken</b>							
Count	74	825	7	2367	145	5	3423
% w/in GENRESUL	2.2	24.1	.2	69.1	4.2	.1	100.0
% w/in RACE	6.9	10.7	6.8	8.9	7.9	11.1	9.2
<b>Citizen assist</b>							
Count	26	222	1	598	55	0	902
% w/in GENRESUL	2.9	24.6	.1	66.3	6.1	0	100.0
% w/in RACE	2.4	2.9	1.0	2.3	3.0	0	2.4
<b>Field interview</b>							
Count	21	175	2	416	21	0	635
% w/in GENRESUL	3.3	27.6	.3	65.6	3.3	0	100.0
% w/in RACE	1.9	2.3	1.9	1.6	1.1	0	1.7
<b>Outside agency</b>							
Count	2	11	0	21	0	0	34
% w/in GENRESUL	5.9	32.4	0	61.8	0	0	100.0
% w/in RACE	.2	.1	0	.1	0	0	.1
<b>Totals</b>							
Count	1079	7718	103	26544	1847	45	37336
% w/in GENRESUL	2.9	20.7	.3	71.1	4.9	.1	100.0
% w/in RACE	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Stops involving Hispanic citizens represent 9.2% of the total stops and appear to be over represented in felony arrests (13.5%), misdemeanor arrests (11.9%), field interviews (9.6%) and warnings (9.4%) (See Table 3.28).

**Table 3.28 – Crosstabulation of general results of the stop and ethnicity of the citizen**

	Ethnicity of citizen (ETHNIC)			
	Hispanic	Non Hispanic	Not reported	Totals
<b>General results of stop (GENRESUL)</b>				
<b>Felony arrest</b>				
Count	75	479	2	556
% w/in GENRESUL	13.5	86.2	.4	100.0
% w/in ETHNIC	2.2	1.4	1.2	1.5
<b>Misdemeanor arrest</b>				
Count	387	2866	7	3260
% w/in GENRESUL	11.9	87.6	.2	100.0
% w/in ETHNIC	11.2	8.5	4.2	8.7
<b>Citation</b>				
Count	1954	19259	120	21333
% w/in GENRESUL	9.2	90.3	.6	100.0
% w/in ETHNIC	56.6	57.1	72.7	57.1
<b>Warning</b>				
Count	278	2661	5	2944
% w/in GENRESUL	9.4	90.4	.2	100.0
% w/in ETHNIC	8.1	7.9	3.0	7.9
<b>Police case generated</b>				
Count	318	3908	23	4249
% w/in GENRESUL	7.5	92.0	.5	100.0
% w/in ETHNIC	9.2	11.6	13.9	11.4
<b>No Action taken</b>				
Count	301	3115	7	3423
% w/in GENRESUL	8.8	91.0	.2	100.0
% w/in ETHNIC	8.7	9.2	4.2	9.2
<b>Citizen assist</b>				
Count	76	825	1	902
% w/in GENRESUL	8.4	91.5	.1	100.0
% w/in ETHNIC	2.2	2.4	.6	2.4
<b>Field interview</b>				
Count	61	574	0	635
% w/in GENRESUL	9.6	90.4	0	100.0
% w/in ETHNIC	1.8	1.7	0	1.7
<b>Outside agency</b>				
Count	0	34	0	34
% w/in GENRESUL	0	100.0	0	100.0
% w/in ETHNIC	0	.1	0	100.0
<b>Totals</b>				
Count	3450	33721	165	37336
% w/in GENRESUL	9.2	90.3	.4	100.0
% w/in ETHNIC	100.0	100.0	100.0	100.0

A series of similar analyses (crosstabulations) of citizen age and gender and the general result of the stop reveals patterns consistent with the overall findings. The age and gender of the citizen do not appear to substantially affect the general results of the stop. For all age categories, receiving a citation is the most common general result. Similarly for both males and females, receiving a citation is the most common general result.

A series of similar analyses (crosstabulations) of employee age, race, gender and years of service and the general results of the stop reveals patterns consistent with the overall finding. The age, race, gender or years of service of the employee do not appear to substantially affect the general results of the stop. Regardless of these factors, receiving a citation is the most common general result of a stop.

A logistic regression model was developed to identify the factors that might predict whether or not a citizen is arrested subsequent to a stop. The dependent variable (ARREST) was developed from the original results of the stop (RESULTS) variable and coded as “0” = no arrest and “1” = arrest. The predictors for this analysis include variables relating to the officer, the race or ethnicity of the citizen, the results of the stop (arrest or search), various location variables, the age of the driver, and others.

Predictably, stops involving a search or physical resistance are more likely to result in an arrest. Similarly, stops conducted at the discretion of the officer, as opposed to being dispatched, appear to result more often in an arrest. Longer lasting stops appear also to predict an arrest. However the temporal order of this relationship is unclear. Specifically, the model cannot determine whether the longer stop produces an arrest or whether an arrest produces a longer stop. Stops conducted at night are more likely to result in an arrest. Stops involving Black and Hispanic citizens appear to be more likely to result in an arrest.

However, the data set cannot determine the relationship between the reason for the stop and the results of the stop. An officer's age and years of experience appear to influence the outcome (arrest) of a stop. Older and more experienced officers tend to make fewer arrests (See Table 3.29).

**Table 3.29 – Logistic regression model of factors predicting an arrest during stops conducted by the Wichita Police Department (n = 37,454)**

Variable	<i>B</i>	Significance	Odds Ratio
<b>Black<sup>a</sup></b>	<b>.509</b>	<b>.000</b>	<b>1.664</b>
<b>Hispanic<sup>b</sup></b>	<b>.208</b>	<b>.050</b>	<b>1.231</b>
<b>Search<sup>c</sup></b>	<b>2.890</b>	<b>.000</b>	<b>18.001</b>
<b>Officer's gender<sup>d</sup></b>	<b>.183</b>	<b>.019</b>	<b>1.201</b>
<b>Officer's age</b>	<b>-.021</b>	<b>.000</b>	<b>.979</b>
<b>Officer's years of experience</b>	<b>-.017</b>	<b>.029</b>	<b>.984</b>
<b>Time of day<sup>e</sup></b>	<b>.593</b>	<b>.000</b>	<b>1.810</b>
Age of citizen <sup>f</sup>	.052	.360	1.053
Crime rate	.068	.416	1.070
<b>Physical resistance<sup>g</sup></b>	<b>1.270</b>	<b>.000</b>	<b>3.559</b>
<b>Duration of stop<sup>h</sup></b>	<b>3.326</b>	<b>.000</b>	<b>27.813</b>
<b>Officer's level of discretion<sup>i</sup></b>	<b>1.272</b>	<b>.000</b>	<b>3.566</b>

Note: Model chi-square = 12373.853,  $p < .05$ , Nagelkerke R-square = .637

Dependent variable: 0 = No arrest, 1 = Arrest

a. 0 = Not Black, 1 = Black

b. 0 = Not Hispanic, 1 = Hispanic

c. 0 = No search, 1 = Search

d. 0 = Female, 1 = Male

e. 0 = Day, 1 = Night

f. 0 = 25+ years old, 1 = less than 25 years old

g. 0 = No physical resistance, 1 = Physical resistance

h. 0 = Up to fifteen minutes, 1 = Over fifteen minutes

i. 0 = Non-discretionary, 1 = Discretionary

Variables in bold indicate statistical significance of .05 or less.

## **SECTION FOUR**

### **FINAL COMMENTS AND RECOMMENDATIONS**

This final section includes analyses of two issues (reactivity and differential deployment patterns) that potentially affect the validity of the results. This section concludes with a few cautionary statements regarding the interpretation of the results.

As discussed previously, the potential for reactivity is a significant concern among researchers in this field. Considerable evidence exists (in other contexts) that individuals behave differently if aware that their activities are being evaluated critically even by an objective observer. Because of the contemporary political dynamics of this issue, some researchers have even questioned the ability of police departments to accurately collect data of this nature. There are two immediately apparent methods available to researchers for determining the potential for reactivity in research situations such as this.

First, in most cases, an instrument used to gather information relating to race based policing is an *additional* form upon which a police officer enters information relating to an official activity, i.e. a contact with a citizen. Normally, a police officer routinely reports a citizen contact on several different forms including case reports, offense reports, citations, warnings, field interview cards and summary activity reports. A simple comparison between these *official* reports of an officer's activity and the activity report relating to race based policing could potentially identify sources of differential reporting. Unfortunately, the Wichita Police Department, like many other municipal agencies, does not have a definitive or comprehensive reporting mechanism. Activities are reported on various forms and duplication is evident, but not easily discernable.

Second, comparing the issuance of moving citations before during and after a race based policing data collection period might provide some insight into the potential reactive effect. Fortunately, this information is available for this study. During the race based policing data collection period (January 1, 2001 through June 30, 2001) the Wichita Police Department issued 29,839 citations for moving violations. During the same period in the previous year (January 1, 2000 through June 30, 2000) the department issued 43,059 citations for moving violations, or 13,220 more citations. From this one might conclude that the race based policing data collection effort resulted in fewer stops. However, when considering the results from neighboring cities these results are not as conclusive. During the first six months of 2000 the Oklahoma City Police Department issued 49,796 citations for traffic violations. During the first six months of 2001 this department issued 41,328 citations for traffic violations, or 8,468 fewer tickets. During the first six months of 2000 the Topeka Police Department issued 13,971 citations. During the first six months of 2001 this department issued 12,364, or 1,607 fewer citations. During the first six months of 2000 Troop F of the Kansas Highway Patrol (deployed in the Wichita area) issued 68,563 tickets. During the first six months of 2001 the Patrol issued 64,291 tickets, or 4,272 fewer tickets. During the first six months of 2000 the Tulsa Police Department issued 49,563 citations. During the first six months of 2001 this department issued 55,074 citations, or 5,802 more citations. With the exception of the Tulsa Police Department, comparable departments in the region all experienced a reduction of tickets issued during the Wichita Police Department's data collection period. It is important to note however that the Wichita Police Department's reduction is considerably higher in terms of a percentage reduction than other area departments (See Table 4.1).

**Table 4.1 – Ticket activities of area departments**

Department	First six months of 2000	First six months of 2001	Percentage change
Wichita	43,059	29,839	30.7% decrease
Oklahoma City	49,796	41,328	17.0% decrease
Topeka	13,971	12,364	11.5% decrease
Kansas Highway Patrol	68,563	64,291	6.23% decrease
Tulsa	49,563	55,074	10.0% increase

One must interpret this finding carefully. There are a number of factors that could affect the number of tickets issued. For example, the decrease in tickets issued by the Kansas Highway Patrol is directly attributed to a decrease in the number of person hours worked by Kansas Highway Patrol Troopers during the first six months of 2001. Similarly, institutional changes within the Wichita Police Department (e.g. the decentralization of the traffic section) could have affected the number of tickets issued. However, it is reasonable to expect that a change of this magnitude did not occur by chance. Whether or not this change is attributable to the data collection effort is not definitively clear from this data. There is at the very least enough evidence for subsequent research.

Police departments consistently argue that officer deployment is a more important predictor of the race or ethnicity of individuals stopped. Most municipal police departments, including Wichita's, justifiably deploy officers on the basis of demand for their services (e.g. calls for service, crime rates, population density and reported crime per residents). In most American cities, neighborhoods with high rates of crime tend to be inhabited by racial and ethnic minorities. This does not suggest that racial and ethnic minorities are more likely to engage in criminal activities. Instead, as most agencies argue, when officers are deployed into high demand (i.e. high crime) areas they are inadvertently in more contact with higher proportions of racial and ethnic minorities. In short, racial and ethnic minorities are unintentionally subjected to higher levels of police surveillance. As a result, officers will

contact, and subsequently detain or arrest, more minorities. In an effort to evaluate the validity of this argument, the principal investigator conducted the following analysis.

Because exact staffing levels cannot be determined at the beat level, the number of stops by beat is used to indicate the deployment levels of police officers within the 36 beats throughout the city. Using a correlation technique (Pearson  $r$ ) the principal investigator attempted to determine the relationship between deployment, crime rates (reported crimes per person) and the proportion of Black citizens by beat. If the staffing levels are positively correlated to the crime rate and negatively correlated to the proportion of Black citizens then it is reasonable to conclude that crime rates, and not racial composition, affect the department's deployment strategy. However if the staffing levels are negatively correlated to the crime rate and positively correlated to the proportion of Black citizens then it is reasonable to conclude that racial composition, and not crime rates, affect the department's deployment strategy.

The result is that neither the crime rate nor the racial composition of the beat appear to affect the department's deployment strategy. Even though staffing levels are positively related to crime rates and negatively related to racial composition (indicating that the department deploys officers on the basis of demand instead of race) none of these correlations are statistically significant (See Table 4.1).

In order to fully evaluate this argument a more rigorous analysis using beat level variables will be necessary. To date, no other researcher has conducted such an analysis. The Wichita Stop Study data set along with additional independently developed beat profiles would be responsive to this important issue within this research agenda.



**Table 4.1 – Correlation of officer deployment, crime rate and racial composition by beat**

	Number of stops	Reported crimes per person	Percent of Black citizens
<b>Number of stops</b>	1.00	.121	-.162
Sig. (2-tailed)		.481	.346
N	36	36	36
<b>Reported crimes per person</b>	.121	1.00	.103
Sig. (2-tailed)	.481		.551
N	36	36	36
<b>Percent of Black citizens</b>	-.162	.103	1.00
Sig. (2-tailed)	.346	.551	
N	36	36	36

The Wichita Stop Study data set, the largest and most qualitatively complete data set of its kind, is certain to be an important contribution to this research agenda. Despite the value of this data set and the rigor of its analyses, one substantial research problem remains. Disparate enforcement patterns, in and of themselves, do not definitively *prove* race based policing. What we know is that policing is a dynamic and reactive process. On an average day police officers make and remake thousands of decisions based on fluid and incomplete fact situations. In order to fully understand the results of these decisions we must document the process by which these decisions are made. Unfortunately, nothing in this data set or any similar data set is capable of such an analysis. It is safe to say that disparity exists with respect to race and ethnicity within some of the routine enforcement practices of the Wichita Police Department. One cannot however determine from these results how much of this disparity, *if any*, is based on racial or ethnic prejudice.

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